

## ATROPINE SULFATE\*

**Classification:**    *∅* Parasympathetic blocking agent  
                              *∅* Cholinergic blocking agent  
                              *∅* Antidysrhythmic agent

**Onset:**                    2 - 5 minutes

**Actions:**                *∅* Inhibits parasympathetic stimulation by blocking acetylcholine receptors  
                              *∅* Decreases vagal tone resulting in increased heart rate and AV conduction  
                              *∅* Allows bronchial dilation and decreases respiratory tract secretions  
                              *∅* Decreases gastrointestinal secretions

**Duration:**              20 minutes

**Precautions:**

Administer supplemental oxygen and monitor rhythm frequently. The increased heart rate may increase myocardial oxygen demand and result in ischemia and dysrhythmias.

**Indications:**           *∅* Symptomatic bradycardia  
                              *∅* Asystole, agonal, PEA (<60 beats/min)  
                              *∅* Organophosphate (pesticide/nerve agent) poisoning

**Note:**

Atropine is not recommended in asymptomatic bradycardia. The increase in myocardial oxygen demand may cause or extend a myocardial infarction. May cause paradoxical slowing of heart rate if less than the therapeutic dose is given; Minimum dose is 0.3mg in adults and 0.1mg in pediatric patients.

**Contraindications:** *∅* Neonates

Worsens glaucoma due to pupillary dilation.

<p><b>Adverse Effects:</b>    <i>Cardiovascular</i>  <b>tachycardia</b>  <b>increased myocardial O<sub>2</sub> demand</b></p> <p><i>Respiratory</i>  mucus plugs</p> <p><i>Gastrointestinal</i>  difficulty swallowing  dry mouth</p>	<p><i>Neurological</i>  <b>seizures</b>  dizziness  confusion  dilated pupils  blurred vision</p> <p><i>General</i>  hot, dry skin  worsens glaucoma</p>
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Pupil reaction may not be a reliable indicator for hypoxic brain damage after atropine administration.

High doses of atropine may be required in organophosphate poisoning.

Use 1mg/ml preparation for IM administration and 1mg/10ml preparation for IVP/ET administration. May need to use the 1mg/ml preparation and dilute with NS for any dose that exceeds recommended ET administration volume (minimum 2ml - maximum 10ml).

**Administration:**

*Adult- Organophosphate (nerve agent) Poisoning*  
2mg IVP, IM or 4mg ET.  
May repeat IVP/IM/ET dose every  
5 minutes until patient is breathing adequately and secretions begin to dry.

Signs/Symptoms of Organophosphate Poisoning: Tearing of eyes, ataxia, hypotension, wheezing, seizures, confusion, abdominal cramps, watery nasal discharge, nausea/vomiting, loss of reflexes, generalized weakness, constricted pupils, bradycardia, diarrhea, extreme salivation, sweating, and urination.

Pediatric >1 month:        **\*\*Do not Administer Atropine to Neonates**

*Organophosphate (pesticide/nerve agent) Poisoning*  
Minimum single dose 0.1mg - maximum single dose 2mg

0.05mg/kg IVP, IM, or 0.1mg/kg ET.  
May repeat IVP/IM/ET dose every  
5 minutes until patient is breathing adequately and secretions begin to dry.

\*This card is modified to identify use of this drug as part of a nerve agent antidote regimen.



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